

## National Science Foundation

## § 671.12

awaiting transport to McMurdo Station, for a period not to exceed 15 months;

(3) If Antarctic hazardous wastes, radioactive wastes, or medical wastes, are generated at or transported to Palmer Station, they may be temporarily stored at that station while awaiting transport to McMurdo Station or other disposition, for a period not to exceed 28 months;

(4) Containers holding Antarctic hazardous wastes must be:

(i) In good, non-leaking condition with sufficient structural integrity for the storage of Antarctic hazardous waste;

(ii) Made of or lined with materials which will not react with, and are otherwise compatible with, the Antarctic hazardous waste to be stored, so that the ability of the containers to contain such waste is not impaired;

(iii) Stored in a manner that allows access for inspection and response to emergencies; and

(iv) Inspected at least weekly for leakage and deterioration. All inspections must be appropriately documented.

(5) Tank systems used for storing Antarctic hazardous wastes must be in good, non-leaking condition with sufficient structural integrity for the storing of hazardous wastes; and systems must be inspected weekly to detect corrosion or releases of waste and to collect data from monitoring and leak detection equipment, to the extent available, to ensure that they are functioning properly. All inspections must be appropriately documented. Prior to the expiration of the 15 month period referred to in § 671.11(b)(1), all Antarctic hazardous wastes shall be treated or removed from Antarctica in accordance with § 671.12.

(6) Ignitable, reactive or incompatible wastes shall be properly segregated and protected from sources of ignition or reaction, as appropriate.

(c) All Antarctic hazardous wastes generated at a location other than a permanent station may be temporarily stored at such location for a period not to exceed 12 months, in closed, non-leaking containers marked to indicate their contents. Such containers must be in good condition and made of or

lined with material which will not react with and is otherwise compatible with the Antarctic hazardous waste stored therein so as not to impair the ability of the container to contain the waste. Prior to the expiration of the 12 month period referred to above, all such hazardous wastes shall be either:

(1) Treated or processed, disposed of or removed from Antarctica pursuant to § 671.12, or

(2) Removed to a permanent station and temporarily stored at that station in accordance with paragraph (b) of this section.

### § 671.12 Waste disposal.

(a)(1) The following wastes shall be removed from Antarctica:

(i) Radioactive materials;

(ii) Electrical batteries;

(iii) Fuel (both liquid and solid);

(iv) Waste containing harmful levels of heavy metals or acutely toxic or harmful persistent compounds;

(v) Poly-vinyl chloride (PVC), polyurethane foam, polystyrene foam, rubber and lubricating oils, treated timbers and other products containing additives which can produce harmful emissions or releases;

(vi) All other plastic wastes except low density polyethylene containers (such as bags for storing wastes) provided such containers are incinerated in accordance with paragraph (e) of this section;

(vii) Solid, non-combustible wastes; and

(viii) Fuel, oil and chemical drums that constitute waste.

(2) Notwithstanding paragraph (a)(1) of this section, the obligations set forth in paragraphs (a)(1) (vii) and (viii) of this section shall not apply if the Director determines that the removal of such wastes by any practicable option would cause greater adverse environmental impacts than would be caused by leaving them in their existing locations.

(b) All liquid wastes other than sewage and domestic liquid wastes and wastes referred in paragraph (a) of this section shall be removed from Antarctica to the maximum extent practicable.

(c) Sewage and domestic liquid wastes may be discharged directly into

the sea, taking into account the assimilative capacity of the receiving marine environment, and provided that such discharge occurs, wherever practicable, where conditions exist for initial dilution and rapid dispersal, and further provided that large quantities of such wastes (generated in a station where the average weekly occupancy over the austral summer is approximately 30 individuals or more) shall be treated at least by maceration. If biological treatment processes are used, the by-product of such treatment may be disposed of into the sea provided disposal does not adversely affect the local environment.

(d) Residues of introduced animal carcasses, laboratory culture of micro-organisms and plant pathogens, and introduced avian products must be removed from Antarctica unless incinerated, autoclaved or otherwise sterilized.

(e) Combustible wastes not removed from Antarctica other than wastes referred to in paragraph (a) of this section, shall be burnt in incinerators which reduce harmful emissions or discharges to the maximum extent practicable and the solid residue of such incineration shall be removed from Antarctica; provided, however, that USAP may continue to bury such combustible wastes in snow pits at South Pole Station, but must phase out such practices before March 1, 1995. Any emission or discharge standards and equipment guidelines which may be recommended by the Committee for Environmental Protection constituted or to be constituted pursuant to the Protocol or by the Scientific Committee on Antarctic Research shall be taken into account.

(f) Sewage and domestic liquid wastes and other liquid wastes not removed from Antarctica in accordance with other provisions of this section, shall, to the maximum extent practicable, not be disposed of onto sea ice, ice shelves or grounded ice-sheet unless such wastes were generated by stations located inland on ice shelves or on the grounded ice-sheet. In such event, the wastes may be disposed of in deep ice pits if that is the only practicable option, provided the ice pits are not located on known ice-flow lines which

terminate at ice-free land areas or in blue ice areas of high ablation.

(g) No wastes may be disposed of onto ice-free areas or into any fresh water system.

(h) Open burning of wastes is prohibited at all permanent stations, and shall be phased out at all other locations by March 1, 1994. If it is necessary to dispose of waste by open burning prior to March 1, 1994, allowance shall be made for the wind direction and speed and the type of waste to be burnt to limit particulate deposition and to avoid such deposition over areas of special biological, scientific, historic, aesthetic or wilderness significance.

(i) Each unauthorized release of waste in Antarctic shall be, to the maximum extent practicable, promptly cleaned up by the person responsible for such release.

**§671.13 Waste management for the USAP.**

(a) In order to provide a basis for tracking USAP wastes, and to facilitate studies aimed at evaluating the environmental impacts of scientific activity and logistic support, the USAP shall classify its wastes in one of the following categories:

- (1) Sewage and domestic liquid wastes;
- (2) Other liquid wastes and chemicals, including fuels and lubricants;
- (3) Solid wastes to be combusted;
- (4) Other solid wastes; and
- (5) Radioactive material.

(b) USAP shall prepare and annually review and update a waste management plan (including plans for waste reduction, storage and disposal) specifying for each of its permanent stations, field camps and ships (other than small boats that are part of the operations of permanent stations or are otherwise taken into account in existing management plans for ships):

- (1) Current and planned waste management arrangements, including final disposal;
- (2) Current and planned arrangement for assessing the environmental effects of waste and waste management;
- (3) Other efforts to minimize environmental effects of wastes and waste management; and